

WHAT IS CLAIMED IS:

1. A thermo-sensitive infrared ray detector comprising a substrate, first and second sections formed on said substrate and including first and second thermo-sensitive resistors, respectively, said first and second thermo-sensitive resistors
5 having similar dimensions and thermally isolated from one another and from said substrate, and a shield member for shielding said second thermo-sensitive resistor against an infrared ray.

2. The thermo-sensitive infrared ray detector as defined in claim 1, further comprising a read circuit for reading a difference signal representing a difference between output signals read from said first and second thermo-sensitive
5 resistors.

3. The thermo-sensitive infrared ray detector as defined in claim 2, wherein read circuit supplies a bias current to each of said first and second thermo-sensitive resistors, and cancels self-heating signal components caused by said bias current in
5 outputs from said first and second thermo-sensitive resistors.

4. The thermo-sensitive infrared ray detector as defined in claim 1, wherein said shield member includes at least one of an

infrared ray reflector film and an infrared ray absorbing member.

5. The thermo-sensitive infrared ray detector as defined in claim 4, wherein said infrared ray reflector film includes Al, Ti, W or silicide of one of these materials.

6. The thermo-sensitive infrared ray detector as defined in claim 4, wherein said infrared ray absorbing member overhangs said second thermo-sensitive resistor, and is thermally coupled to said first thermo-sensitive resistor.

7. The thermo-sensitive infrared ray detector as defined in claim 4, wherein said infrared ray absorbing member includes at least one of silicon nitride film, silicon oxide film, silicon carbide film and silicon oxy-nitride film.

8. The thermo-sensitive infrared ray detector as defined in claim 4, wherein said infrared absorbing member includes a thermo-sensitive resistor or a metallic film

9. The thermo-sensitive infrared ray detector as defined in claim 1, wherein a difference in a heat capacity between said first section and said second section is within 10%.

10. The thermo-sensitive infrared ray detector as defined in claim 1, wherein said first and second sections forms a pixel, and a plurality of said pixels are arranged in an array on said substrate.

11. The thermo-sensitive infrared ray detector as defined in claim 10, wherein said infrared ray absorbing member overhangs said second thermo-sensitive resistor, and is thermally coupled to said first thermo-sensitive resistor.

12. The thermo-sensitive infrared ray detector as defined in claim 10, wherein a pair of said infrared ray absorbing members extending from adjacent first thermo-sensitive resistors overhang said second thermo-sensitive resistor disposed therebetween.